<u>In the Claims:</u>

Please amend the claims so that the pending claim set reads as follows:

1. (Cancelled)

2. (Previously Presented) The hazard atlas of claim 13, wherein the hazard value of each voxel is based on any one or more of anatomical, vascular, and functional regions of tissue scored according to a specific numerical rating scale.

3. (Previously Presented) The hazard atlas of claim 13, wherein the hazard value of each voxel is based on patient images and recorded patient behavior and outcomes.

4. (Previously Presented) The hazard atlas of claim 13, wherein the tissue is brain, and the hazard value for each voxel is determined by analyzing a set of images from a group of patients that correlates damage in a specific region of the brain with a degree of loss of function and wherein the hazard value is commensurate with the degree of loss of function.

5. (Previously Presented) The hazard atlas of claim 13, further comprising a scale that correlates the values of the voxels to a code.

6. (Withdrawn) The hazard atlas of claim 5, wherein the code is color.

7. (Original) The hazard atlas of claim 5, wherein the code is a series of numbers.

8. (Withdrawn) The hazard atlas of claim 5, wherein the code is a gray scale.

9. (Cancelled)

10. (Previously Presented) The hazard atlas of claim 13, wherein the image of the tissue is a three-dimensional image.

11. (Previously Presented) The hazard atlas of claim 13, wherein the tissue is brain.

12. (Cancelled)

13. (Currently Amended) A system for determining a hazard score for a patient having a disorder in a tissue, comprising a device arranged to obtain or store an image of the patient's tissue, wherein the image comprises a plurality of patient image voxels; a memory or computer-readable medium storing a hazard atlas of a disorder in the tissue, wherein the hazard atlas comprises a plurality of voxels, each voxel representing a hazard value of an extent of deficit caused by damage from the disorder to that voxel of tissue at that location; an output device; and a processor linked to the imaging device, memory, and output device, wherein the processor is programmed to (i) obtain the image of a tissue of the patient; (ii) identify voxels of the patient image that are damaged by the disorder as damaged patient image voxels; (iii) obtain from the memory or computer-readable medium the hazard atlas of the disorder in the tissue; (iv) compute a hazard score for the patient, wherein the score is the integration of all damaged patient image voxels weighted by a~the hazard value corresponding to that voxel location; and (v) transmit the hazard score to the output device.

14. (Original) The system of claim 13, wherein the device to obtain the image of the patient's tissue is a magnetic resonance imaging device.

15. (Original) The system of claim 13, wherein the hazard atlas is an atlas of the brain affected by stroke.

16. (Original) The system of claim 13, wherein the hazard atlas comprises a scale that correlates the values of the voxels to a code.

17. (Currently Amended) The system of claim 13, wherein the hazard score is computed using the formula:

Hazard Score = $\sum_{j=1}^{N2} \sum_{i=1}^{N1}$ National Institute of Health Stroke Scale~NIHSS$_{ij}$ / volume$_i$ • infarct_voxel$_j$

where N1 is the number of outlined regions and N2 is the total number of infarct voxels.

18. (Original) The system of claim 13, wherein damaged patient image voxels are identified using an image segmentation method.

19. (Original) The system of claim 13, wherein the image of a tissue of the patient comprises a series of images to represent a three-dimensional image.

20. to 28. (Cancelled)

29. (New)   A system for producing a hazard score, the system comprising a device arranged to obtain or store an image of a patient's tissue, wherein the image comprises a plurality of patient image voxels; a memory or computer-readable medium storing a hazard atlas of a disorder in the tissue, wherein the hazard atlas comprises a plurality of voxels, each voxel representing a hazard value of an extent of deficit caused by damage from the disorder to that voxel of tissue at a specific location; an output device; and a processor linked to the imaging device, memory, and output device, wherein the processor is programmed to (i) obtain the image of a tissue of the patient; (ii) identify voxels of the patient image that are damaged by the disorder as damaged patient image voxels; (iii) obtain from the memory or computer-readable medium the hazard atlas of the disorder; (iv) compute a hazard score for the patient, wherein the score is the integration of all damaged patient image voxels weighted by the hazard value from the hazard atlas corresponding to that voxel location; and (v) transmit the hazard score to the output device.